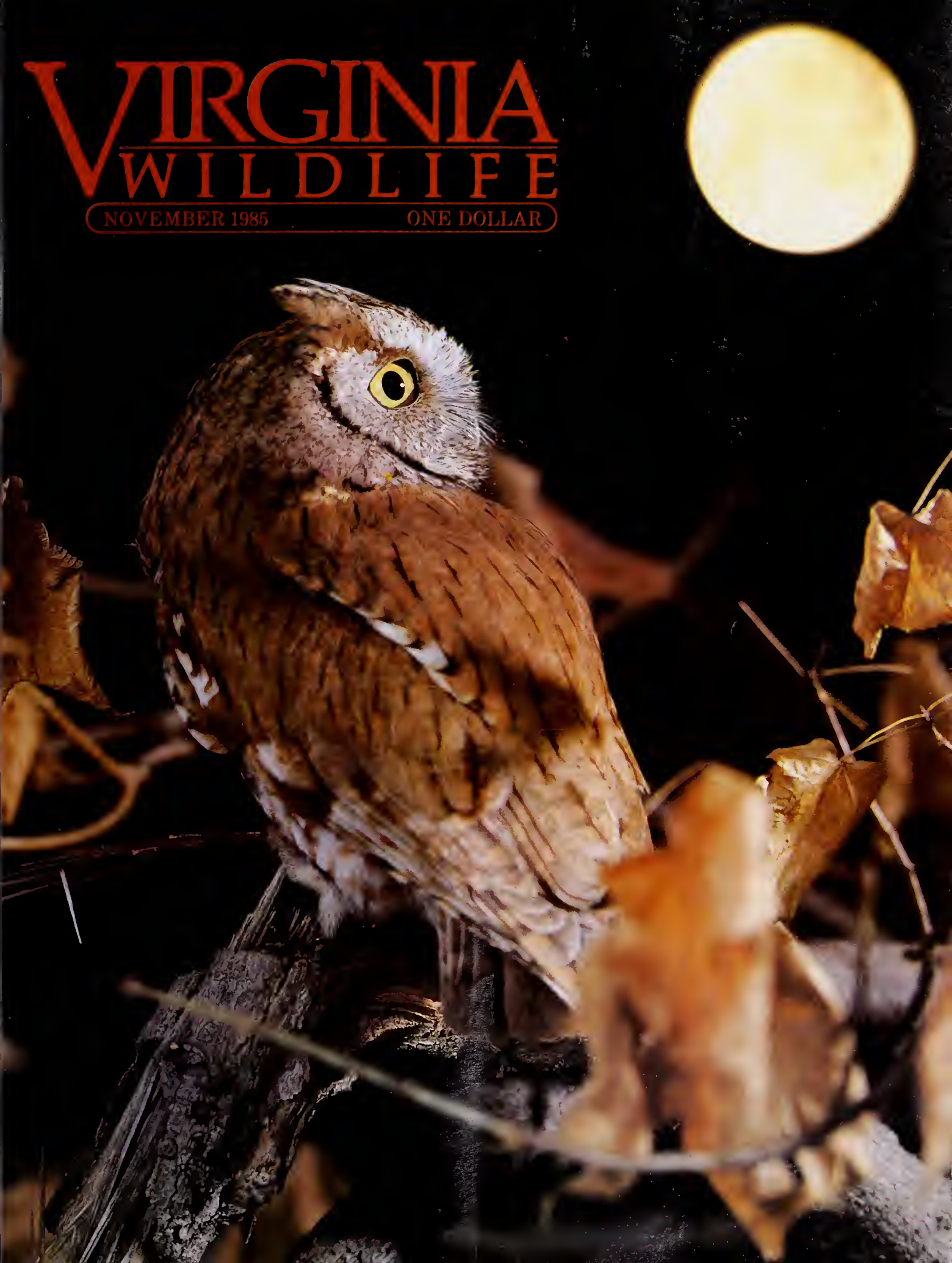
VIRGINIA WILDLIFE

NOVEMBER 1985 ONE DOLLAR



"All men who have loved hunting have been good."

C.D.H. Clarke pulled that quotation out of the writings of the ancient Greek philosopher Xenophon for an essay he wrote in defense of hunting. I may not believe those words are true of all those who hunt, but I believe they are true of all those who tie their souls to hunting.

Although when questioned about why we hunt we nearly always justify our hunting with the typical arguments about sound game management and our perpetuation of wildlife through our hunting license fees, we all know that hunting is much more than that. Otherwise, we wouldn't continue to get up at 3:30 a.m. on the coldest mornings of the year, season after season, just to sit in a blind or a stand all day cramped, cold, and wondering when we're going to hear even a crow call shatter the cold blue stillness.

Somehow, at some time, every hunter realizes that he has a common bond with every single species on earth, and every particle that makes up the ground he stands on. Having hunted, we know what life springs from and what it needs to survive—and we know better than to believe that life will forever be cranked out by a slaughterhouse and meat grinder and a Safeway in cellophane-wrapped packages.

For us, our worst fear is in severing our connection with the rest of life—of letting go of our ties to the environment. That is why we make ourselves get to our deer stands before dawn and suffer through cold feet and iced up fingers and aching bodies until dark with nothing to show for it—to be reminded that life and the ability to sustain life cannot be taken for granted. We make that journey every hunting season out into the woods to be *humbled*—to realize that we too are dependent upon other life for our own life. We go out there to be a part of it. In the woods we are part of the cycle again, where every death is used to create life. Nothing is wasted, and nothing is lost. We hunt to remember that feeling.

I am the first one to admit that even the best of us find it hard to hold tight on our beliefs. Most of us will never be able to shake free of our dependence on man-made comforts—unless we have to. It is much too easy to come home from a deer hunt empty-handed and stop by Wendy's for a hamburger. And it is much too easy to scout an area with a four-wheeled drive vehicle to help things along, or use someone else's stand, or buy a 10X scope and a high-powered rifle and shoot a doe on a day when you and your buddies have tied up an area with men and guns and dogs. We have not gone hungry because of our lack of skill. We have not felt the terror of losing our lives because we were not good enough shots or skilled enough foragers. We have not felt the truth of our dependence on our environment because we have not had to.

But we have tried. And we have brushed up against it at least—enough to feel the chill of darkness setting in on a lonely deer stand, and the ache of the gun stock against our shoulders, and the cramp of straining to be motionless for hours; and the emptiness, the stillness around us. And it wouldn't take much to make that leap to despair, knowing that our own lives might be shortened because there was nothing to bring home to eat that night—and the fear that there may be nothing to eat for the next several nights. The hunter knows how much our lives are at stake.

That is why for the hunter the value of his environment is not only measured in terms of how beautiful it is, or how rare the rock formations or animal species that exist there are—rather, it is also measured in terms of its ability to support and perpetuate life. That, perhaps, is true respect for all life.

The Sioux Indians believed that an owl guarded the entrance to the Milky Way, over which the souls of the dead had to pass in order to reach the spirit land. But a man could not pass the owl without displaying a certain tattoo marked on his wrist. Without the tattoo, his body would be hurled into the bottomless abyss.

I know that there are some people who do not hunt who bear the tattoo, and they have suffered through pain and understanding to achieve that mark. But I know that without the hunt, my wrists would remain clean. For me, there is no understanding without the hunt. The abyss would be waiting. □

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Dedicated to the Conservation of Virginia's Wildlife and Related Natural Resources
Volume 46, Number 11 *November 1985*

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The RIGHT STUFF (For Ducks!)

The true reasons behind a duck hunter's obsession with his personal duck hunting belongings.

by Stephen C. Ausband
illustrations by Jack Williams

Duck hunting, as any dedicated duck hunter will tell you, is different from other hunting. It is different not because it is colder (the coldest I have ever been was on a deer stand in a freezing drizzle) or more challenging (have you ever grouse hunted?), but because it requires more *stuff*.

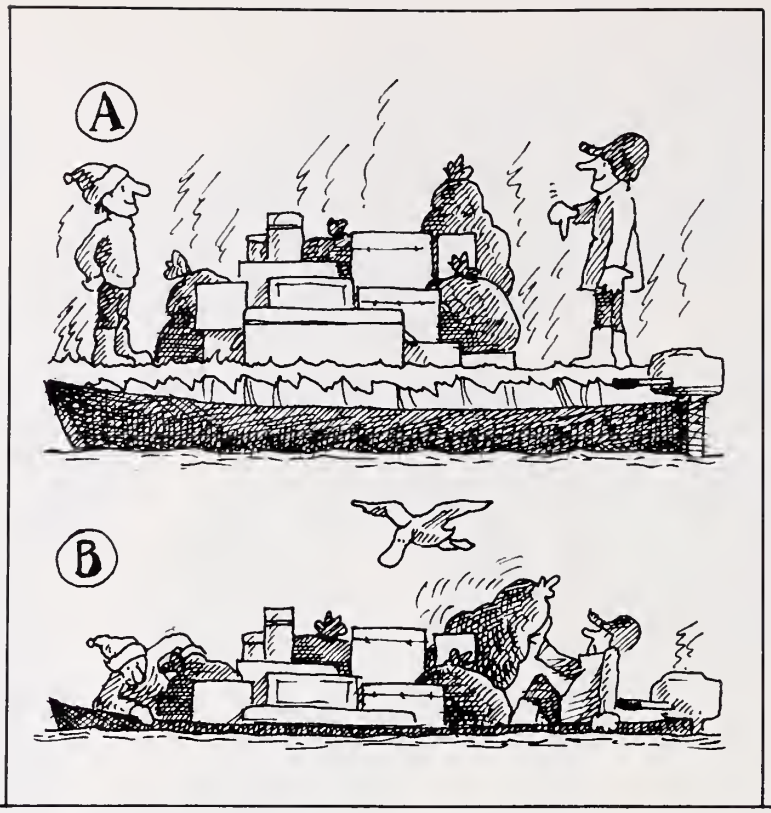
Duck hunters routinely acquire and carry around more stuff than other kinds of hunters. I now own a small room full of stuff—decoys, waders, extra weights, decoy line, patching kits, decoy paints, drab-olive parachute cloth for hiding my boat, blind-building materials—that I use only during a few precious weeks—and the room threatens to overflow at any moment. As a matter of fact, the room is already too full to accomodate the burlap bags I must keep stored for the season, so I have put them under my workbench in another part of the basement. The bags are for carrying stuff.

A duck hunter usually has a boat or two, but unless one of the boats is a layout model or something else used exclusively for waterfowling, he will not include it in his list of duck hunting stuff. Nor will he include his long underwear, wool sweaters, gloves, hats, coats, and other apparel, for he knows that the appearance of overspending on one activity is unseemly. He will probably include a shotgun, having long ago given into the urge to buy something special for his favorite sport and being now loath to group it with his other, less specialized fowling pieces. "This is my duck gun," he will say proudly. It may be a battered pump that holds a particularly good pattern out beyond forty yards, or it may be a classic L.C. Smith or Parker, but you can bet it has a special place in his house. And among his stuff.

In my heart of hearts I know it is possible to kill ducks with very little more in the way of equipment than one would take on a dove hunt. During my first year after graduate school, when I was feeding my family on fish heads and rice (or so it seemed), I owned a second-hand pump gun and a leaky wooden boat. I borrowed five plastic decoys that looked a lot more like hunks of plastic than they looked like ducks, and I went duck hunting. I killed ducks. Not many ducks, mind you, and not particularly desirable ones; but they all had webbed feet and bills, and I was well on my road to ruin by the end of the afternoon. I bought a duck gun, a pair of waders, a better boat, a warmer coat, and plastic decoys that really looked like ducks. Later I even got a retriever. The hard truth about the dog is that he eats a lot and smells pretty awful for ten months out of every year. But for the two remaining months he is a duck dog. More stuff.

The reason duck hunters have stuff fetishes has to do with the essential nature of duck hunting. It is a ritualistic endeavor, imbued with more symbolic trappings than a High Mass. To an extent, of course, all hunting is ritualistic. The squirrel hunter slipping through damp woods on an October morning, stopping to smell the leaf mould and examine the ribs on a fallen hickory leaf, is more or less aware of participating in something that smacks of magic, and the involved etiquette of quail hunters or the shirt-tail cutting and face marking at a Southern deer camp are as ritualistic as a Gregorian chant.

But waterfowlers are the high priests of hunting, the ones who don the cassocks (camo or dead-grass color, please), and advance to the *sanctum sanctorum*, the duck marsh or bay shore, where mystery and magic are in the wind and over the gray waves, expected and anticipated and revered.



Let us examine the particulars.

First we have the duck itself. Most of the ducks I shoot at have flown further than a stewardess for Pan Am, and they have done it by some mysterious guiding system that was already unthinkably old when my earliest ancestors began to notice ducks. Furthermore, the ducks come streaming into my life every fall wearing their best traveling suits, quite obviously decked out for a special affair. A friend I once introduced to duck hunting (and so ruined him forever) held his first mallard silently for a full minute. Then he said, "That's impossible; nobody would design feathers with that many different colors."

It's no wonder, then, that duck hunters pay some attention to their own vestments. That a bird can sport fancier and subtler colors than those of a renaissance pope and still fly 70 m.p.h. over thousands of miles and go exactly where he wants to go, is enough to make the most hard-eyed materialist talk about miracles. Walt Whitman once said that a mouse was miracle enough to stagger sextillions of infidels. Walt didn't have numbers high enough to let him mention ducks.

Then there is the fact that duck hunting usually takes place in close proximity to water. Any philosopher knows that water brings out the metaphysician in everybody who has wondered about anything more compelling than television soap operas. One just can't stand in dark, silent water and listen to the whistle of wings in the trees overhead and think he has gone to all this trouble and expense—collected all this stuff—just to shoot a bird for the table. Furthermore, the kind of duck hunting I enjoy most, and the kind I regard as of the highest level, involves *lots* of water—big, choppy, lead-gray bodies of water, where sometimes the wind blows bitterly and clouds of bluebills or redheads swing suddenly out of the wind and over my decoys and then disappear again into the wind, leaving me speechless and alone. Duck hunting on big water also requires boats, and I had already decided at the age of twelve or so that any activity involving both boats and shotguns was almost too good to be accounted for except by recourse to tales about special blessings.

"We load our boats with decoys and camping gear, waders and shotguns and ice chests and sacks of food. . . . hoping to find ducks."

And finally there is the duck hunter himself. He prepares himself by rising early, often hours before dawn, and dressing in the darkness. I have never known a duck hunter who did not prefer a specific, ritual pre-hunt breakfast—even if he did not always get it. I have a cousin who, if he could, would always choose sausage biscuits made at a little all-night restaurant near South Hill, Virginia. Most other members of my family lean toward sausage, eggs, and grits—with the proviso that when my young brother is around, the grits be three-minute grits, not instant grits.

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(Instant grits, he claims, are not proper food for a serious duck hunter.) I hunted one or two seasons with a man who had fried egg sandwiches and Mellow Yellow soft drinks every time I went with him. For breakfast! That is carrying a regime too far, of course, but it does say something about the dedication and iron will of a veteran waterfowler.

Duck hunters talk about special calls they have owned (Olt, Mallardtone, Cajun, what-have-you), decoy spreads that have worked particularly well in the past, guns, dogs, boats, and shells.

And of course there is always disagreement about what shells work best. I prefer shooting a heavy field load of #4's at big ducks rather than the much more heavily loaded magnums one of my friends shoots, not because the field load is inherently better (it is not), but because I have had a lot of luck while using it. In short, I have faith in it. Logic is on his side, but faith has moved mountains of shot.

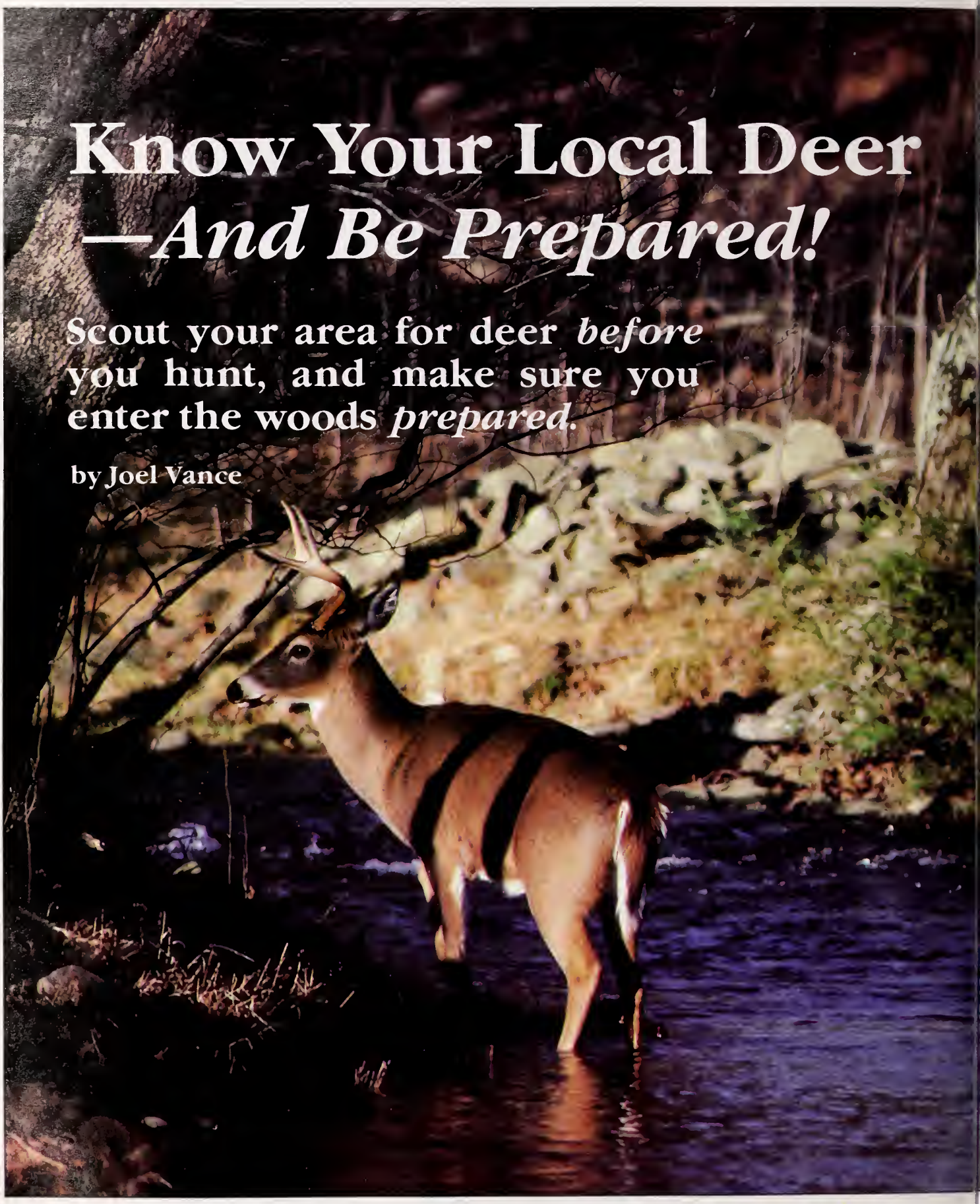
Every year my two brothers and I go to an imposing wilderness of sawgrass and cypress swamps near the coast for several days of duck hunting. We stay in a hunting shack we built with my father. Last year my son went with us, and it will not be too many years before Bob's kids and Pat's kids are old enough to go too. I suppose that gives us something of a sense of continuity—a little like the continuity we see and feel in the endless generations of ducks that have always returned to these swamps and wind-swept sounds.

". . . there is a permanence in the hunt itself that makes minor changes seem like whispered illusions."

But of course our three meager generations are insignificant in comparison with theirs, and we always stand awed as we must be in the presence of mystery. We load our boats with decoys and camping gear, waders and shotguns and ice chests and sacks of food, and we set out every year about the same time, hoping to find ducks. The meals are the same, and so are the conversations and the last drink before bedtime and the smell of Hoppe's and wet wool.

But the water is different every day and the ducks and geese are not always the same in number or in kind, but there is a permanence in the hunt itself that makes minor changes seem like whispered illusions. There is always the same collection of gear to be carried in and out, and the carrying is part of the fun—a parade of celebrants holding their stuff. The gear itself has earned veteran status by now, the Coleman stove having cooked far more ducks than the stove at home.

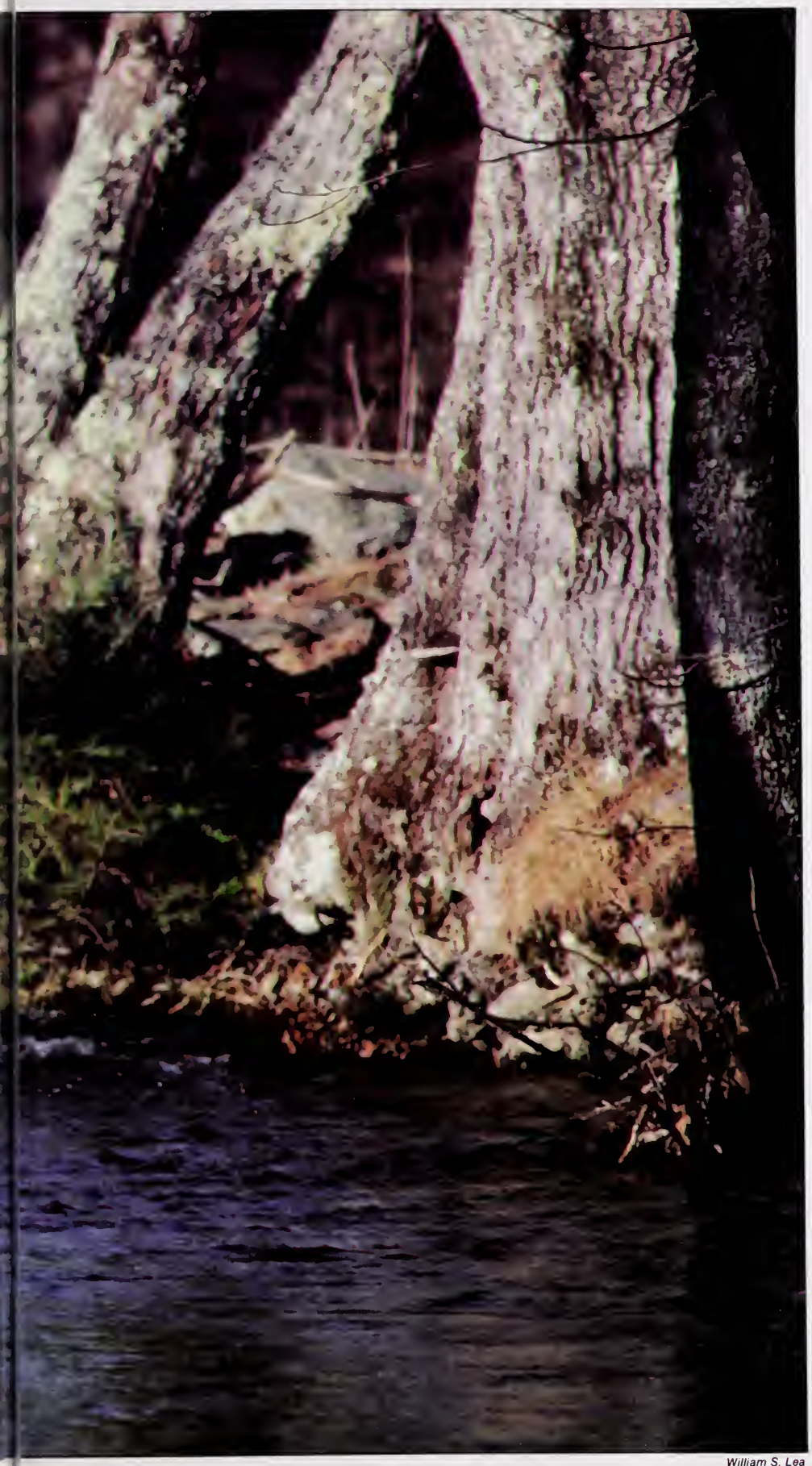
Late one night in camp I lay awake listening to geese calling on the river. The cabin was crowded with sleeping hunting partners, waders, heavy clothing, and lanterns. There was no running water, no toilet, no electricity, and very little heat. I wondered then why I was so content. I think it was probably because I had all my stuff together. □



Know Your Local Deer —*And Be Prepared!*

Scout your area for deer *before* you hunt, and make sure you enter the woods *prepared.*

by Joel Vance



William S. Lea

Six a.m. . . . alarm clock . . . ah, geez! Yawn, scratch . . . feel the bristle of whiskers. Perform the morning ablutions . . . yawn some more, scratch. Breakfast, same as yesterday, same as the day before.

Same old route to work, same sights . . . creatures of habit. Us and deer.

Know your local deer and your chances of being one of the more than 80,000 Virginia hunters who take home a deer are vastly improved.

Deer are incredibly efficient at hiding themselves. Even in the sparsest of cover they can melt into the scenery. Most neophyte hunters expect a deer to be as big as an elk and are surprised when they see the animal is scarcely more than belt-high to an NBA guard, even a big trophy buck.

But deer also are creatures of habit. Most of them have a home range of a mile or two. Now, a square mile of territory can hide a single deer pretty effectively, even if the deer doesn't help in the hiding (which he will).

So, you scout. You spend time in your deer woods until it is as familiar to you as your back yard. One of the best times to scout is in winter, when the leaves are off the trees, the vegetation is down, and the landscape is as bare as it gets.

A long walk is therapeutic for the body and educational for the mind. Take along a Geological Survey quadrangle or other detailed map of the area and mark it. Pencil in well-worn deer trails, especially if they are obviously being used.

Note the ridges where big bucks might bed down. Pinpoint brushy gullies that also can be deer hides, or swamp swales, another prime hideyhole for your trophy. Long before deer season comes, you should have a stand or stands picked out.

There's other pre-season preparation necessary. Before you can think about killing a deer, unless you're planning to run it down and strangle it, you need to choose a deer rifle.

Jack O'Connor and Elmer Keith, probably history's two most famous gun writers, had a running feud for years over the proper big game rifle. Keith was an advocate of big bore guns with enormous shocking power, while O'Connor opted for smaller caliber, high velocity guns that put a premium on a perfect first shot.

More deer probably have fallen to the lever action Winchester "thutty-thutty" (or one of its look-alike competitors) than to any other, but that doesn't necessarily make it the perfect deer rifle. It is lightweight, inexpensive and durable, a good saddle gun—the Gun

That Won The West. But how many Virginia hunters work from horses?

Many hunters swear by the lever-action gun, saying they use the first couple of shots to clear the brush away, then shoot for effect. But by the third shot the deer will be running and the chances of a one-shot kill are increasingly difficult. And any hunter who has killed a few deer knows that a deer might not show any initial sign of being hit by a well-placed shot and can run for quite a while before collapsing. The so-called "missed" deer may be seriously wounded.

No hunter should take anything but an ideal shot with a well-sighted-in, accurate rifle. Far too many hunters go to the woods without any idea of where the gun shoots (maybe even *if* it shoots). Sight your rifle in at 200 yards. That will give you a good-shooting bracket of from 100 to 300 yards without much compensation.

Shoot groups of three rounds from a bench rest, measure the deviation from the bull from the center of the group and adjust the scope accordingly. Keep shooting until the rifle is sighted. Shells fired to sight the rifle are cheap insurance against missing the trophy of a lifetime.

Forget open sights—get a scope which gathers light and makes difficult sighting for the naked eye much more efficient. Under eastern hardwood hunting conditions, a four-power scope is plenty. Most shots are at 100 yards or less. A good four-power scope is sharp and easy to adjust.

What about personal gear to take into the field? Deer season can be cold and, barring luck, the hunter who is persistent is the one who scores. Persistence often is in direct proportion to comfort—miserable hunters go home quicker than those who aren't cold, wet, hungry or otherwise wondering whose stupid idea this was.

Good boots are a must and the new lightweight Gore-Tex boots with Thinsulate insulation are a godsend for deer hunters. But they're expensive. Alternatives include the old L.L. Bean-style leather upper, rubber bottom, or the Sorel-type insulated pac. Whatever the footgear, make sure it is the warmest possible; there is no day too warm for the warmest boots on a deer stand.

Be sure to carry raingear—a poncho (that doesn't leak) is awkward, but functions as a portable tent and can make a cold November rain more bearable. Remember—wet down is no down at all, so unless you can keep your down parka or vest dry, don't wear it.

Gary R. Gaston

Knowing where a white-tail is apt to hide out in your area before *you begin your hunt will increase your chances of success in the field.*

As important as boots are warm headgear and gloves. Best hunting glove I ever had was an Army surplus combination of a wool underglove and leather outer shell. Avoid tight-fitting gloves and especially avoid those with rubber fingers facing. They are awful.

I like wool balaclava-type, hunter orange headgear, but some prefer a billed cap for sun shade.

However, without a doubt, hunter orange clothing has saved more lives than any single factor in deer hunting. There is a euphemism often used in hunting accident reports: "Victim mistaken for game." This officialese lends an innocuous quality to an avoidable tragedy. What it should say is: "Poor guy shot by criminally stupid person." Almost never is there a true unavoidable hunting accident. The stray bullet is a near-myth.

Almost all hunting accidents are the result of carelessness, and almost all two-party accidents are the result of someone shooting another person because of an act of negligence.

A solid patch of hunter orange clothing may alert deer—the jury still is out on that—but there's no doubt it alerts other hunters and that, in the long run, is more important.

Get a small day pack (hunter orange is a nice color) to hold everything. Start with a thermos of something hot—soup is better for you than coffee, but coffee is hard to get along without. Don't forget lunch, and a couple of candy bars for quick energy.

Compass? Well, remember, you're hunting your back yard, but some-

times gremlins come in and move whole mountains when you're not looking, so it never hurts to have a compass and a map of the area.

A knife is even more of a personal choice than guns and cartridges, but make sure it is sharp and hefty enough to field dress a deer. The machetes that pass for "hunting knives" are ridiculous. I have a razor-sharp belt knife with a three-inch blade that will field dress any deer ever bred. I know hunters who use nothing but a stout pocketknife.

Take along something to make a drag—a length of good nylon rope can be used to fashion a travois or a dragging harness.

(*There's the old story about the dumb hunters who shoot a nice buck and they're pushing it out of the woods and snagging the antlers in leaves and brush and having a terrible time. They meet a guy who says, "Don't you think it would be easier to drag it?" Comprehension dawns.*

Two hours later, one turns to the other and says, "Hey, this sure is a lot easier, isn't it?"

"Yeah," replies the other guy. "But we're getting farther from the car all the time.")

It wouldn't hurt to have a first aid kit. Take a windbreaker and wear it while hiking and stow your heavy coat in the pack for when you're sitting on a stand.

A good pair of seven-power binoculars is preferable to a rifle scope for spotting—if you're on the other end of an ocular device pointed at you, you'd rather it would be binoculars than a loaded gun, wouldn't you?

Now that you're ready to hit the woods, it should go without saying that you meet all deadlines for permit application and have the proper permit.

Virginia deer regulations vary by county. The best source of information is the "Summary of Virginia Game Laws," available on request from the Commission of Game and Inland Fisheries, Box 11104, Richmond, VA 23230-1104.

Bowhunters and muzzleloader hunters have special seasons—Oct. 12-Nov. 9 archery, then Dec. 2-Jan. 4 archery west of the Blue Ridge; Dec. 16-Jan. 4 muzzleloaders in designated counties.

There are three major methods of hunting deer. By far, the most commonly used is stand hunting. Pick a strategic overlook, often in a tree, above a known deer travel lane, and wait. Simplest form of hunting there is, but unless you know the territory, it also can be a good chance to catch up on reading, sleep, or anything but seeing deer.

Hunt known deer-use areas such as intersecting deer trails, where a well-used trail empties into a field where deer feed, a creek crossing, a natural travel lane of any kind, a buck rub or scrape. Getting even a little way off the ground gives a hunter a much better field of view, plus tends to put him above a deer's natural caution zone.

Deer are most active in the morning and evening hours (actually, often they're most active at night, but that's outside legal hunting hours). This is the most likely time to hunt a stand, the first couple of hours of morning, the last couple of hours of evening.

In the middle of the day, adopt different techniques. Either still hunt or run a drive. Still hunting is a quiet, cautious moving hunt, where you hope either to surprise or sneak up on a deer. The best still hunters are those who occupy a moving series of stands. Still hunt on a zig-zag course, into the wind, or quartering to it.

Use the ridgetops and look down the hills, because bucks like to spend the day bedded where they can look down a hill. Still hunting is especially effective on quiet days when it is misting or raining lightly. The deer can't smell as well, can't see as well, and the hunter can move silently.

Remember, no matter how adept you are in the woods, you're unlikely to surprise even the most unwary deer. They live there every hour of every day. A deer has a keen sense of smell and of hearing. Its eyesight also is excellent, but the animal is more alerted by motion than by form. A motionless hunter usually won't be identified by a deer.

Drives can be done with as few as two people. One or more hunters move through a likely piece of cover, hoping to drive deer past other hunters blocking the end of the cover.

Most likely covers to hunt this way are small woodlots isolated by open areas, especially wooded gullies where drivers can cover both sides and the middle of the gully. However, it's astonishing how deer, especially wary old bucks, can conceal themselves in almost no cover and let a team of drivers walk right on by.

Drivers (or still hunters) may fluster a deer into moving by pausing frequently, and by a zig-zag course.

I know a bowhunter who used to move through the woods occasionally flicking a white handkerchief. His theory was that deer would be fooled into thinking he was another deer. I'd be more than a little spooky about looking like a deer with other hunters in the woods.

Deer hunting at its purest is man against deer, one on one, his sense against your gun. And deer hunting at its least attractive, as far as I am concerned, is drive hunting, especially that accompanied by the use of walkie-talkies or four-wheel-drive vehicles. Any device that tends to turn deer hunting into a technological rather than a sporting triumph cheapens the experience.

Whatever the method, there is no substitute for "hunting your backyard." You even can do it in the comfort of your living room. Get Geological Survey quadrangles or Soil Conservation Service aerial photos of your proposed hunting area and learn to read them. Identify the fields and gullies so you have a good idea of the lay of the land before you actually walk it out on foot.

Know where the food sources are and the water sources. Talk to farmers—they see the deer at all hours of the day, under all conditions.

There is nothing magical about a deer permit. It is not a ticket to a pile of meat. All it does is insure the privilege of the hunter to hunt, not to kill. Far too many hunters speak of "my" deer, as if the animal were branded and paid-for ahead of time. Mostly, that's a word without meaning, but uncomfortably many really feel that way and feel cheated and irritated if they don't drop a deer. They have an arrogance toward what they hunt that is disquieting.

How can anyone feel that a deerless day is a lost day? The November woods whisper with the gossip of falling leaves and the air is like water from a cold mountain spring when you're thirsty. Squirrels patter in the leaves and you're never quite sure whether it's squirrels or maybe a deer. Red-tailed hawks wheel overhead, spiralling south where the warm, warm breezes blow. Chances are, since it's deer season, you'll see a flock of turkeys. If it were turkey season, you'd be overrun with deer. But who cares?

A deer permit is a ticket to a day in the woods, with the opportunity for the excitement of the hunt, and the possibility of a freezer-full of meat.

It is a ticket to a scrapbook of memories to be studied on the cold winter days and into the long, hot summer before another season comes with its own share of sweet moments. □

CLOTHES - SWAPPING

A GUIDE TO CHANGING WITH THE SEASONS

story & photos by Louis Bignami

Virginia's mild, yet varied climate places more demands on your outdoor clothing than you might expect. Hot, humid summers offer special demands and frigid winter mornings in a duck blind or sneak boat can turn into bluebird afternoons. You could be drier and more comfortable if you better understood how your body produces and loses heat, how to select the best of today's sophisticated clothing, and how to better monitor your body heat balance and quickly adjust clothing for maximum comfort. Do this and you do not need a major investment in winter clothing that is closet-bound nine months of the year. Instead you can stack lightweight underwear, insulation and weatherproof garments, or single layer garments in mild weather. Such a year-round package is the compact solution to all your outdoor clothing needs.

A dash of theory helps you select and use today's garments most efficiently. Your trunk, neck and head must remain at or near 98.6 degrees Fahrenheit and your body controls core temperature with homeostasis, an automatic process that both enlarges blood vessels near the skin. It increases perspiration to cool, and dilates blood vessels and reduces circulation to extremities to warm your vital core. The last is the reason your feet and hands get cold first.

Your body also loses and gains heat by conduction, convection, and radiation. Conductive heat loss results from contact with water, rocks, or other heat conducting materials. Moist air, for example, can increase conductive heat loss in saturated garments up to 20 times that of dead, dry air.

Convective heat loss results as the layer of body-warmed air next to your skin is carried away by air movement. Windchill measures the effective decrease in temperature due to this effect. In hot weather you improve cooling with mesh or other loose garments.

Radiant heat loss is easy to prevent. Cover your skin with a layer of material over an air gap and you eliminate most problems. Special-radiation barrier materials are increasingly used for this.

So you need clothing made from efficient material in easily adjustable designs. You need not buy a complete outfit. Instead, survey your wardrobe and replace inefficient garments one by one. To do this you need to examine function, materials and quality design features in each garment class. Then look at head, hand and foot coverings so you can see how best to judge new garments with an eye on fitting them into your wardrobe.

"Skin" Wear

Underwear determines your skin comfort. Fishnet cotton mesh feels fairly dry even if wet because it touches a small percentage of your skin. But "poly" mesh is more efficient than cotton because less absorbent "poly" can't get damp. Mesh also suits summer days as it is cooler than bare skin, and its shading reduces solar heating without shutting out cooling breezes. Where biting bugs cause problems, mesh underwear under hardweave long pants and long sleeve shirts keeps bugs from biting though to you skin.

Polypropolene absorbs less than 1½ percent of its weight in water. It keeps skin dry by wicking moisture to insulation layers.

In cold weather, silk feels great if dry and is the strongest, thinnest and most comfortable natural fiber. It absorbs moisture and conducts heat poorly, so is a good insulator. Its cost and need for special care and washing are drawbacks.

Wool suits the sedentary. When wet it retains some insulating ability, but is heavy, dries slowly, mildews and itches. Wool mesh underwear itches less, dries faster and insulates better than either wool fabric or cotton mesh. Dual-layer underwear lines wool with other fibers such as cotton to avoid wool itch. Dual-layer underwear is often too warm for active use in cold weather, however, and almost always too warm in mild weather.

Check manufacturer's size recommendations carefully! Many wool and silk garments shrink a whole size after their first washing. However, a short-sleeve, poly-mesh shirt, long-sleeve turtleneck, and poly or poly mesh briefs and longs handle most conditions.

Early military tests found that insulation value increased with the thickness of the dead air trapped next to the body, rather than insulation weight or type. Tests showed your head and hands need *no more than* one inch, your arms, legs and feet require two inches, and your torso needs three inches of insulation. Use more and you just add weight and limit flexibility without increasing warmth. Fine fiber fabrics such as Thinsulate with twice as much insulation per inch of thickness as coarse fills which allow more convective heat loss modify the results somewhat.

Wool insulation isn't very effective by weight, but is quieter in the woods than often noisy nylon garments. If weight isn't critical you might use thin knits such as sweaters that easily layer. At the top end of the warmth for weight scale, down remains the most efficient insulation *if* you can keep it dry. Artificial fills and non-absorbent piles largely eliminate the moisture problems of down and wool. Some fills now approach the effectiveness of down. John Roskelley, one of America's best known climbers noted in the *National Outdoor Outfitters News* that, "Although I still think down is good for long treks in very cold, very dry situations, Quallofil, which has a replacement ratio of 1.1 lb. of Quallofil to 1 lb. of down, has proved itself."

Artificial fills such as Dupont Hollofil II, a loose hollow, chopped fiber, or Celanese Fortrel Polarguard, a continuous filament fiber, also offer decent weight to loft ratios, and dry fast because they don't absorb water.

Fine fiber, 3M's Thinsulate, and DuPont's Sontique don't compress well but are much warmer for their *thickness* than either down or loose artifical fills. Both are nearly as warm as down by weight. Efficiency without bulk results from finer, densely packed fibers that trap more still air than either coarse fibers or loose packs. According to 3M, "100 grams of Thinsulate equal 8 ounces of down." DuPont says, "Sontique offers 55 percent better insulation when wet than polyolefin fiber-thin insulations, and 10 to 50 percent better wash and dry clean durability."

After you select insulation materials, garment class is the next area of choice. Vests are by far the most useful insulating garment as they layer well, and provide that extra inch of insulation around your torso where it is most needed. Layered Thinsulate and/or Sontique vests and pile or fleece zip-front sweaters offer above the waist insulation without binding bulk.

Stay dry and you stay warm. Outer garments should let sweat escape, exclude water, protect against windchill and resist tears. So consider

What to wear and when to wear it—how to choose the right clothes for the outdoors.

Head coverings are extremely important in cold weather. Shown here is a bunting balaclava.

Combination Gore-Tex and leather gloves keep your hands warm and comfortable.

Lightweight Gore-Tex boots are waterproof and take a load off your feet.

Gore-Tex rainsuits can be a boon to hunters.

weatherproof, but not necessarily waterproof materials for outfits worn in the wet.

Cotton/polyester, clear plastic and coated nylons are budget choices. Cotton/polyester fabric absorbs waterproofings for water-resistance with some breathability, but the "greenhouse sauna" effect of clear plastic garments isn't comfortable; most tear in a trip or two as well. Since nylon won't absorb waterproofing, these fabrics require factory coating and some need needle holes sealed by the buyer. Conservatives seal seams twice.

Light, solid polyvinyl chloride (PVC), and rubber or PVC-coated fabrics are more durable than clear plastics, but trap sweat even on cold days. *Woven* coated fabrics such as Bukflex reduce moisture buildup and are suitable for temperatures up to 50 degrees or so. But, PTFE's such as Gore-Tex allow more sweat to escape without admitting water and seem today's choice in weatherproofing garments.

Buy quality weatherproof garments first. Then purchase poly-/wool or poly mesh underwear to assure skin level comfort. Carefully consider inner wicking layers for the head, hands and feet if you work up a sweat in the field. Add a waist pack or knapsack to stash lunch, dry changes and shed layers. This complete and compact outfit can fill your year-round outdoor clothing needs.

Don't forget that price is a poor measure of value. The number of days you use a garment until it's worn out is a better measure of its worth. Quality garments from manufacturers, retailers or catalog house which offer "no questions" money back or replacement guarantees will give you your money's worth.

Three tests will help you find quality clothing. First, make sure buttons are evenly stitched down with heavy thread. Second, look for bar tacking at stress points such as pocket flaps and zipper ends, since this improves durability. Third, check that zipper seams are even, so that zippers sliders work easily.

Compare several garments in the same class, for fine workmanship, like quality materials, is easy to spot. Such garments last for years, so the time invested in selection is repaid in future comfort. If you add to this a systematic selection program and shore up the weakest parts of your clothing portfolio first, you can enjoy more comfort and more days for less money and a more compact outfit. □

Raptors in the Shadows

by Virginia Shepherd

We know from their shadows. It seems we never see them but in the half-darkness of twilight, and then we know them only from dim outlines on bare branches, from tell-tale ear tufts or yellow eyes. Or from their haunting calls in darkness.

The Iroquiois believed that owls were shaped by God in anger; that the rebellious, proud owl angered God and thus was created in spite—with all the wrong attributes. The Northwest Indians believed that the owl calls out the names of men and women who will die soon, but the Passamaquoddy tribe tells the tale of the magic of the owl; of its possession of a magical love flute that can seduce even the most hardhearted. Even the owl legends are contradictory—difficult to bring in out of the shadows.

Owls are the noiseless hunters of the night, able to strike their prey in silence because of the frayed edges of their flight feathers which mask all sound. Because of the abundance of rod-shaped cells in their eyes, owls are able to see more clearly in poor light, but are not blind in daylight, either. Though nearly color-blind, in the darkness their pupils can be dilated nearly as wide as their eyes, and their sensitive ears can pick up sounds as faint as those of mice feeding on barn floors and pinpoint their location.

Owls are the hawks of the darkness. They feed by night on the mice, voles, reptiles, amphibians, fish and insects that the Red-tailed and Red-shouldered hawks prey on by day. The Great Horned Owl even hunts rabbits and large birds.

Seven species of owls are known to Virginia, though the Short-Eared Owl does not nest regularly in the state, and the Saw-whet Owl is a summer resident of the high mountains. The Common Barn Owl is becoming increasingly rare in Virginia, though no one knows exactly why, and a study is being funded by the Game Commission's Non-Game Program to investigate the situation. Nest boxes have been found to help the populations of certain species of owls, since most do not migrate during the winter.

But, there are still many owl secrets waiting to be brought to light. For example, biologists are still working on understanding what's behind the periodic Arctic owl "invasions," and why owls, usually believed to be solitary, travel in groups during these invasions, and why some species are migrating and others are staying put. True to their natures, owls still belong to the shadows.

Roy Edwards

Great Horned Owl

Bubo virginianus
(immature pictured)

- **Size:** 18.4 to 25.7 inches long with a 49 to 62.1-inch wingspread.
- **Habitat:** Mature woodlands, marshes in close proximity to woods; even along such places as the James River Park in downtown Richmond. The Great Horned Owl is also common on the Eastern Shore and in the mountains.
- **Call:** Deep, soft, hooting foghorn-like call: whooo-whooo whoooooooo whooo-whoooo.
- **Nest:** Generally an abandoned hawk, eagle, crow, or heron nest, and occasionally in a natural tree hollow or nest box.

Lloyd B. Hill

Common Barn Owl

Tyto alba

- **Size:** 14 to 20 inches long with a 43 to 47-inch wingspread
- **Habitat:** Open country in close proximity to towns and cities. However, the Common Barn Owl is becoming rare in Virginia.
- **Call:** Hiss, screech, softly ascending sneeze that can be frightening.
- **Nest:** The Common Barn Owl does not construct a nest, but deposits eggs on the barn floors, silo openings, towers, buildings, cliffs, banks, duck blinds, and occasionally bird boxes.

Steve Maslowski

Barred Owl

Strix varia
(immature pictured)

- **Size:** 16.1 to 24.2 inches long with a 38 to 50-inch wingspread.
- **Habitat:** Wet or swampy woodlands in the eastern part of the state, or mature hardwood forests in other areas of the state.
- **Call:** "Who cooks for you?"
- **Nest:** Abandoned Red-shouldered Hawk or crow nests, large deep hollows in trees.

Steve Maslowski

Eastern Screech Owl

Otus asio
(red phase pictured)

- **Size:** 8.3 to 8.9 inches long with a 20.1 to 22.6-inch wingspread
- **Habitat:** Open woodland in close proximity to creeks, parks, marshes and old fields. It is a common bird in the Shenandoah Valley and the Richmond area.
- **Call:** Eerie, quavering trill on one pitch (contrary to the "screech" of its name).
- **Nest:** This owl constructs no nest. It deposits its eggs in tree cavities, old flicker holes, hollow stumps, and nest boxes.

William S. Lea

Eastern Screech Owl

Otus asio
(grey phase pictured)

- Both red and grey phases of the Eastern Screech Owl occur regardless of age or sex.
- Eastern Screech Owls have ear tufts in common with the Great Horned Owl and others. Surprisingly, the tufts have nothing to do with the owl's hearing. It has been observed, however, that these ear tufts are not normally elevated, but they they become erect if the owl is startled or in danger.

International Venison

Five easy-to-prepare venison recipes with a hearty international flavor.

by Annette Bignami
illustrations by Jack Williams

Dark, delicious venison ranks with the best tasting game in America if it's properly dressed, kept and prepared. If not quickly field dressed, carefully prepared and wrapped for freezing, then moist cooked, larded or basted, it can be too strong or too dry.

We start with a young buck that's quickly dressed, hung in a cool place and then boned out without the use of saws that produce bone chips. Since our freezer fills fast with ducks, pheasants, quail and fish, boning lets us pack venison more compactly. We trim off and boil fat with bones for stock and dog food so nothing's wasted; then package venison in meal-size portions wrapped in plastic bags with the air removed, then in freezer paper taped tightly shut before the cut is marked with a moisture-proof pen.

Steaks from back strap, tenderloin and other prime cuts taste lovely on their own, so let's look at a gastronomic United Nations of French Daube, Russian Stroganoff, Flemish Carbonnade, Mexican Chili and German Sauerbraten that make the rest of the venison go further. Most of these dishes need only pasta or rice, a green vegetable or salad and dessert for a complete meal that family and guests will remember.

French Daube Bignami

A lovely stew with a French flavor, this presentation is extremely easy to prepare, keeps in a warm pot for several hours, and improves on reheating.

2 pounds of chuck, cut into 1-inch cubes
¼ pound butter or margarine
½ cup flour
1 to 2 cups good red wine
2 cloves garlic, minced and crushed
2 teaspoons oregano
3 tablespoons parsley
3 tablespoons tomato paste
salt and pepper to taste
2 cups venison or beef stock (optional, but better)

Pat venison dry and roll it in flour while butter heats to bubbling in a deep pot or Dutch oven. Brown meat on all sides; add and brown garlic. Reduce heat to a simmer and add remaining ingredients. Stir and add venison stock or water to cover meat. Cook one to two hours or until meat is tender. Serve on pasta or with French bread.

Russian Stroganoff

This seems a more authentic preparation than those that use a lot of spices and floured meat. You can prepare it while your rice is cooking. Flaming the brandy impresses guests too! The only tricky point is cooking the venison a bit at a time and quickly so that the outside browns, and the inside doesn't overcook.

1½ pounds venison fillet or tenderloin, cut in 2-inch long strips and ⅜-inch square
¼ cup butter
2 medium onions, sliced
2 cups mushrooms, sliced
¼ cup brandy
½ teaspoon thyme
salt and pepper
1 cup sour cream

Melt half the butter and fry onions over low heat until golden. Remove onions; add mushrooms and cook 2 minutes or until liquid evaporates. Remove mushrooms. Add remaining butter, raise heat and quickly fry venison in two batches until lightly browned. Turn meat frequently and remove batches as they cook.

When rice is ready, put venison back in pan, add brandy and flame as you shake meat. Turn down heat, season, add onions and mushrooms and cook two or three minutes. Pour in sour cream, heat to bubbling, taste for salt and pepper and serve.

Note: the only major difference between this and the Hungarian version is a teaspoon of paprika.

Venison Chili

This dish warms winter hunters, adds a special touch to chili dogs, polenta or tacos and goes very nicely with beans and other Mexican and Southwest dishes. We portion and freeze it into one-cup servings. It reheats well.

3 strips thick bacon
2 pounds venison, diced or coarsely ground
2 12-ounce cans of beer
3 tablespoons of chili powder
1 tablespoon ground cumin
1 tablespoon dried oregano
2 teaspoons Worcestershire sauce
1 teaspoon cornmeal

Cook bacon until crisp, then remove bacon from pan and brown venison in bacon drippings. Add beer and seasonings; bring to boil, reduce to simmer, cover and cook for 45 minutes. Crumple bacon and add to chili. Then stir cornmeal into three tablespoons of water and add to mix. Bring to a boil. Reduce heat and simmer 20 minutes more.

Flemish Venison Carbonnade

One of the great winter meals! The combination of dark beer and onions with the crunch of salt pork complements the taste and texture of egg noodles. It improves on reheating.

¼ pound salt pork, diced in ¼-inch pieces
2 pounds yellow onions, thinly sliced
1 tablespoon sugar
1 cup flour
1 tablespoon thyme
½ teaspoon salt
½ teaspoon pepper
3 pounds venison, cut into bite-size cubes
¼ bottle dark beer
1 tablespoon brown sugar
parsley, chopped for garnish

Saute' salt pork cubes until brown and crisp, remove and reserve. Add onions to skillet, cover and cook 20 minutes or until tender. Uncover, add sugar, raise heat and toss until brown. Remove onions to drain in strainer.

Stir flour and seasonings and coat meat. Press fat out of onions into Dutch oven and use it to brown meat 6 to 8 cubes at a time quickly on all sides. Note: add vegetable oil *only* if needed. Remove cubes as browned.

Heat oven to 325 degrees. Pour beer in Dutch oven and deglaze. Add other ingredients except parsely. Cook in oven for about 1½ hours at a medium simmer. This dish can cook on camp stoves, too.

Venison Sauerbraten

This hearty traditional holiday dish takes 24 to 72 hours to marinate, and looks much more complex to make than it really is. It goes marvelously well with caraway dumplings (use your favorite recipe and add 1½ teaspoons caraway seeds).

4 pounds venison chuck or other 2- to 3-inch thick pieces
Marinade:
½ cup vinegar
2 cups boiling water
2 cups onion, sliced
2 bay leaves
6 whole cloves
12 juniper berries
½ tablespoon sugar
1 tablespoon salt
½ teaspoon pepper
Cooking:
2 tablespoons oil
1 medium red cabbage cut into 8 wedges
15 gingersnaps, crushed
2 tablespoons sugar

Place venison in a glass bowl with onions, seasonings, vinegar and 2 cups of boiling water. Cover and marinate 2 to 3 days in the refrigerator turning twice a day. Important: don't pierce meat with fork when turning.

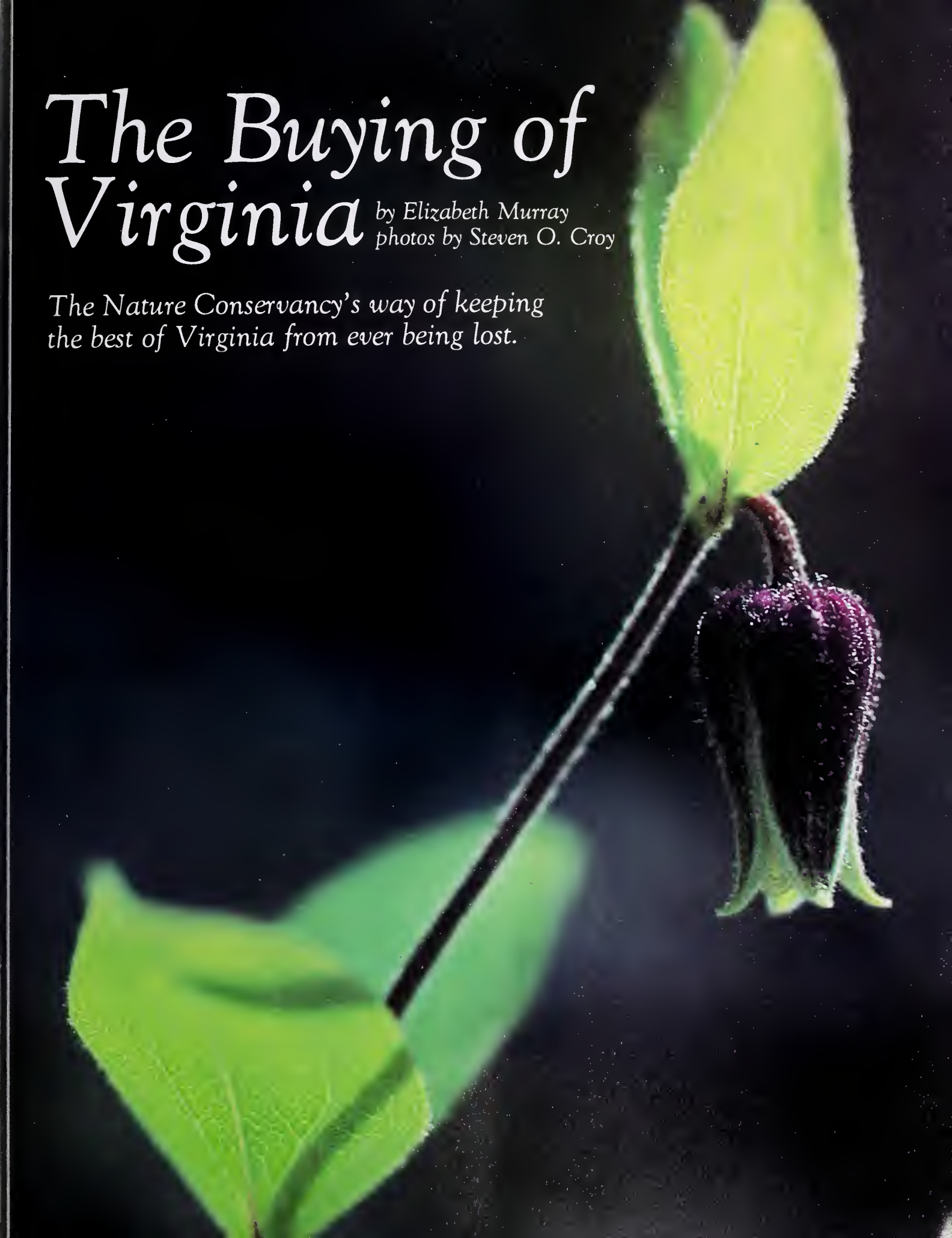
Drain meat (save marinade!), brown in a heavy skillet and oil on all sides. Add marinade, cover and simmer 2½ to 3½ hours or until tender. Remove meat and onions and keep warm. Strain and measure 4 cups of marinade liquid back in skillet. Add cabbage wedges. Cover and simmer 10 minutes. Stir in gingersnaps and sugar and simmer 2 minutes more. Cook dumplings in this liquid. Serve with black bread and a light dessert.

Do go ahead and add your own seasonings, adjust the cooking times, and modify the ingredients in these recipes after you try them once. We add our own custom touches each time we prepare the dish. As a result, we fine-tune our own recipes to our taste after three tries, but are always ready to make improvements! □

The Buying of Virginia

by Elizabeth Murray
photos by Steven O. Croy

The Nature Conservancy's way of keeping the best of Virginia from ever being lost.



What does an 80-foot waterfall have in common with a 3,000-acre lake in the heart of a swamp, a small island in the middle of a big river, a tiny piece of land near a railroad track, or 200 acres of old farmland on the banks of a city reservoir?

They are all parts of the Virginia countryside, important either for natural beauty, ecological uniqueness, critical habitat for threatened species, or all three. And they have all achieved their current status of protection with the help, direct or indirect, of the Virginia Chapter of The Nature Conservancy, a powerful land preservation force in the state since 1960.

In 1974, the Conservancy acquired Falls Ridge Preserve, in Montgomery County, where a tributary of the Roanoke River (known officially as Big Trap Run, but usually referred to simply as Falls Creek) drops 80 feet over travertine limestone. A geological fault running through the preserve separates two completely different soil types, giving contrasting ecosystems which provide the necessary habitat for several rare plants and animals.

In 1973, Union Camp Corporation donated 49,000 acres of the Dismal Swamp to The Nature Conservancy. The land was then deeded over to the U.S. Fish and Wildlife Service and now forms part of the Great Dismal Swamp National Wildlife Refuge. Lake Drummond, in the center of the swamp, is the larger of just two naturally occurring lakes in the state. The swamp around the lake contains numerous plants and animals found nowhere else in the state.

In a stretch of the Clinch River in Scott County, the water around the 35-acre Pendleton Island support no less than 50 species of indigenous freshwater molluscs, which is probably one of the world's most diverse concentrations. The wealth of species here is an indication of good water quality and probably an undisturbed ecosystem. When the Conservancy bought the island, it was concerned with maintaining the quality of the system—and the molluscs. Eight of the species are already Federally listed as endangered, and 11 more may soon join them. The Conservancy has worked closely with the Virginia Commission of Game and Inland Fisheries, the Tennessee Valley Authority, the U.S. Fish and Wildlife Service, the State Water Control Board, and a group of scientists from Virginia Polytechnic Institute and State University (VPI & SU) and has recently

*Bog bean (*Menyanthes trifoliata*) is a wetland plant recently rediscovered in Augusta county. Protecting its habitat is one of the "Conserve Virginia" program's priorities.*

*Preceding page: Leather flower (*Clematis viticaulis*) is a plant found only in Bath, Augusta, and Rockbridge counties. The "Conserve Virginia" program seeks to protect the habitat of such uncommon species.*

established an advisory team composed of members from all the bodies, as well as Conservancy representatives.

In Botetourt County, there is a piece of land, just .026 acre, near the train tracks that is owned by Chessies System Railroads. It is not particuarly beautiful or remote, but it does support a significant colony of Kankakee mallow (*Illiamna remota*). In order to save and encourage the mallow, the Conservancy leases this small piece from Chessie System Railroads, and the lease is renewed annually. The plants are checked and counted twice a year, at flowering and seeding time.

In Albemarle County, a tract of old farmland on the banks of the main Charlottesville/Albemarle reservoir was scheduled for intensive residential development. In 1979, with the aid of a Federal grant, the land was transferred through The Nature Conservancy to the joint ownership of the City of Charlottesville and County of Albemarle. This project is a good example of the Conservancy's resolve to work cooperatively with government agencies in the protection of natural lands. The 215-acre Ivy Creek Natural Area now has six miles of walking trails through its woods and fields, and is managed for public wildlife and nature study.

In broad terms, The Nature Conservancy is committed to the preservation of natural diversity by protecting lands and waters that support the finest remaining examples of our natural world. Since the creation of the Virginia Chapter in 1960, the Conservancy has established 15 preserves in the state and helped with the preservation of 37 others. It has also been responsible for programs which help to identify the most important natural areas, and to evaluate why they are critical and how urgent is the need for protection.

In 1981, the Virginia Natural Heritage Program was established by the Conservancy's Virginia Chapter (see *Virginia Wildlife*, March 1982). Its aims are to classify the components of the natural lands, to gather data on the location, number, condition and status of outstanding examples, and to use this data to set priorities and implement programs for protection. The Conservancy has established Natural Heritage Inventories in 35 other states where the program typically is funded by state governments and matching grants.

In Virginia the program is financed privately through the energetic fundraising efforts of the State Chapter. From the Heritage Program information, over 100 natural habitats have been identified scientifically and, in April of last year, the Virginia Chapter launched its first major land preservation campaign, called "Conserve Virginia." By 1988, the Conservancy plans to protect 30 of Virginia's rarest and most critically endangered natural natural areas. Governor Charles S. Robb has called the Nature Conservancy's approach "the most responsible, sensible, and effective strategy for environmental protection yet devised." He and Honorary Chairman Senator Harry F. Byrd, Jr. have enthusiastically endorsed the undertaking.

"The 'Conserve Virginia' campaign is a far-reaching plan which challenges all Virginians who are interested in and concerned about our state's natural heritage."

The 318-acre Zuni Pine Barrens, another major gift from Union Camp Corporation, became the first of the 30 proposed natural areas actually to acquire protection. The Zuni Pine Barrens represent remnants of a natural system that once extended across 150,000 acres in Virginia, but of which only 1,000 acres remain today.

The largest and most ambitious of The Nature Conservancy's priority projects centers around the wetlands of the Chesapeake Bay. Owing to population growth and changes in land use, good examples of pristine tidal marshes in the state are now limited to stretches of the Chickahominy, Pamunkey, Mattaponi and Rappahannock rivers, plus other smaller tidal tributaries of the Bay. Many plants found within these systems, such as water hyssop and sensitive joint-vetch are now quite rare both in Virginia and elsewhere. The marshes are also habitat for the young of commercial and recreational fish and shellfish, and provide food and shelter for wintering and nesting bald eagles, as well as geese, ducks, and marsh birds. Through the Heritage Program, more than 15,000 acres of freshwater tidal lands have been identified for protection. The Conservancy is committed to the preservation of this system.

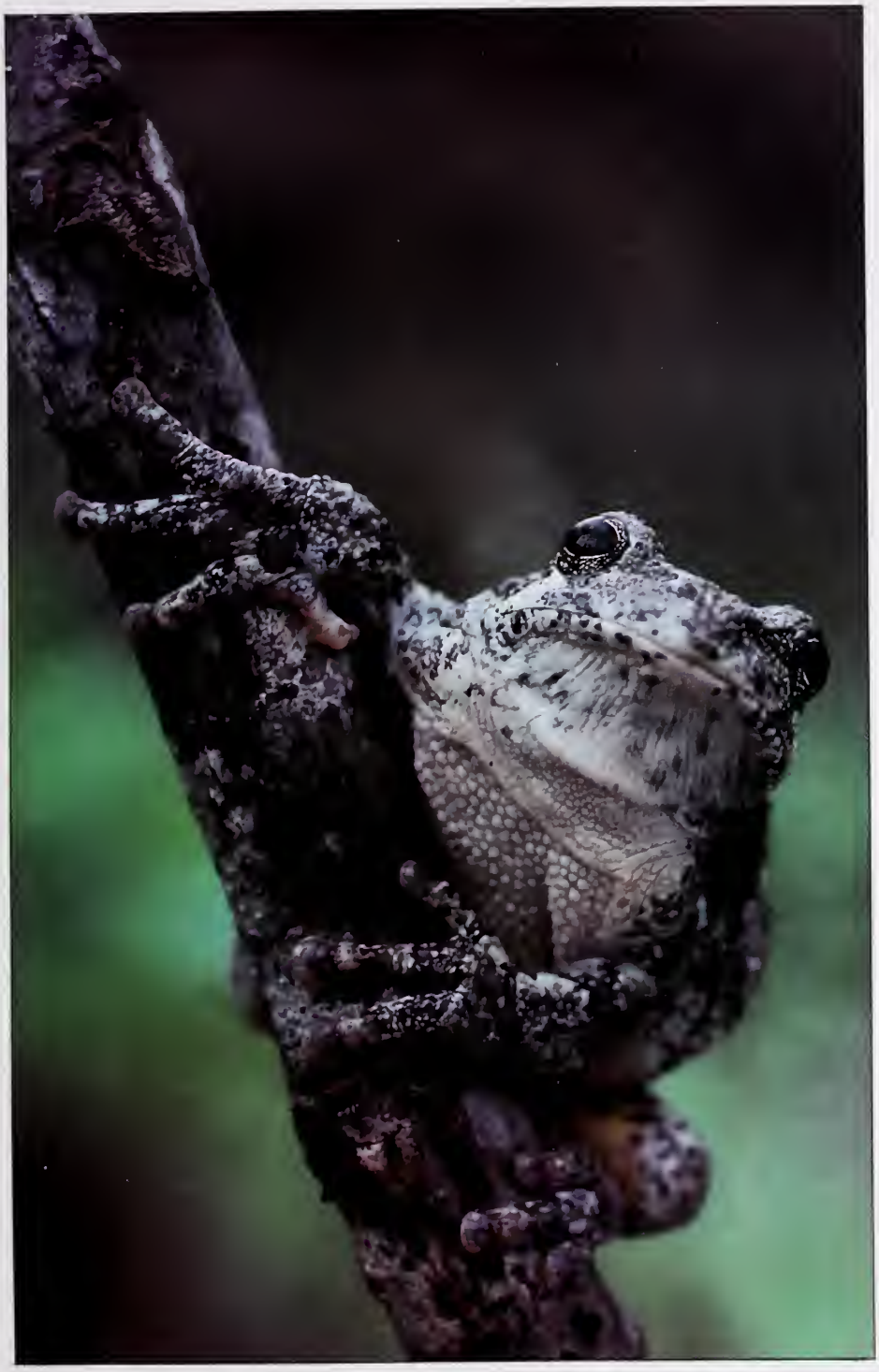
Already, in January of this year, the successful completion of one important step was announced. In cooperation with the state, a 384-acre natural area has been acquired in Charles City County. The land consists of valuable uplands, plus high quality marshes at the junction of Morris Creek and the Chickahominy River, and has been transferred by the Conservancy to the Virginia Game Commission as an addition to the Chickahominy Wildlife Refuge Area, bringing the total area of the refuge up to 5,173 acres.

As a result of funds raised nationally, the largest single Conservancy project in Virginia to date was the establishment of the Virginia Coast Reserve, the chain of barrier islands which stretches from just south of the Virginia/Maryland border to just north of the mouth of the Chesapeake Bay (see *Virginia Wildlife*, November 1984). Another priority project in "Conserve Virginia" proposes several additions which will fill critical gaps in this chain of island protection.

Other projects involve smaller pieces of land. The red-cockaded woodpecker reaches the northernmost limit of its range in Virginia, but is diminishing in numbers and is considered one of the state's rarest breeding birds. The woodpecker makes cavities in old loblolly pines (70 years or more), often choosing trees affected by redheart fungus. The cavities are used either for roosting or nesting, and to maintain a successful breeding group of birds, the habitat must contain sufficient older pines for nesting and nearby younger pines for foraging. Close monitoring of the red-cockaded woodpecker has been conducted since 1976 by Dr. Mitchell Byrd of the College of William and Mary and his colleagues. Ruth Beck, responsible for the woodpecker survey in 1984, reports that there are now nine

One of the "Conserve Virginia" program's priority projects is to protect some of the last pristine tidal marshes around the Chesapeake Bay, such as this one along the Chickahominy River.

Sink Hole Pond in the Shenandoah Valley is an example of an uncommon ecosystem that will be proposed for protection under the "Conserve Virginia" program.



*This grey tree frog (*Hyla chrysoscelis*), less than 2¾" long, is a typical resident of wooded areas along creeks, rivers, and ponds in the eastern part of Virginia. It could probably be spotted in the Game Commission's recently acquired 384-acre natural area in Charles City county, purchased in cooperation with The Nature Conservancy.*

sites with birds left in Virginia containing less than 30 birds; a drastic reduction from 1978 when 50 individuals were counted. Of the nine sites, seven are in Sussex County, and although their locations are widely scattered, the Conservancy is negotiating to protect as many as possible.

Additional protection is planned for the 20-mile stretch of the Clinch River which includes Pendleton Island, already a Virginia Nature Conservancy preserve. And, in Giles County, high on Peters Mountain and overlooking a piece of the New River known as the Narrows, The Conservancy is negotiating for the protection of a rare mallow's habitat. The resistant sandstone cliff is the only place, not just in the state, but in the world, where *Iliamna corei* is found.

The "Conserve Virginia" priority project list also includes several caves, some of which are important for bats both as hibernacula or maternity sites. These include the Virginia long-eared bat and Indiana bat, both of which appear on the Federal list as endangered species. The project list includes additional land in the watershed of Falls Creek; wetlands in Augusta County, where both the bog rose and the swamp pink grow; a unique series of wet meadows, marshes, and swamps in the Shenandoah Valley; granite outcrops in Brunswick County; and areas of long-leaf pine savannah in Isle of Wight and Southampton Counties.

The campaign has undertaken to raise $1.5 million in the first two years toward the eventual goal of $5 million over the next five years. Some of the money will go to continue the Heritage Program, some toward assuring proper management of the various areas. The rest will be used to acquire adequate protection for the priority properties identified. The Nature Conservancy's nonconfrontational approach uses direct acquisition, trading properties, the negotiation of conservation easements or management agreements, and also acquisition followed by immediate transfer to responsible public or private ownership.

The protection of 2,541 acres in 1984 is an impressive record for The Virginia Conservancy. The "Conserve Virginia" Campaign is a far-reaching plan which challenges all Virginians who are interested in and concerned about our state's natural heritage. We shall be closely following the progress of the "Conserve Virginia" Campaign in the months ahead. □

November Journal

Book Review

Marsh Tales
by William N. Smith
Tidewater Publishers, Centreville, MD
$15.95 hardcover

by Jeffrey M. Curtis

Collectables: vintage shotguns, hand-carved decoys, wildlife prints and even old magazines. All fill a niche in our heritage. All capture a part of history that most of us were not able to participate in and certainly will never get the chance to experience in the future.

Even without ever sharing in witnessing the moonlit rafts of canvasbacks or the days when yellow-legs and swans were legal table fare, we're somehow able to imagine these hunts. Though I've never set a stool of 200-300 wooden decoys and floated in a lay-out boat with the tender nearby, I feel it inside me everytime I handle a well formed block. Memories that aren't really ours still inspire us, and sometimes sadden us as well.

In our efforts to grab relics of former outdoor pursuits, (governed mostly by our financial ability) we often overlook the source of those same relics, the sportsmen who raised the dogs, farmed the land or blew the call. We unintentionally grab the *things* and forsake the craftsman.

Which is why a book like *Marsh Tales* should be a welcome addition for your library. Here, William N. Smith has done us all a service by incorporating stories from the marsh men themselves. Fifteen men who have lived the major portion of their lives off of the fruits of the marshes share a few highlights of their gunning and trapping careers with the reader.

What you can expect from the book is earthy, plain talk about market gunning, duck trapping, the legal and illegal pursuit of game and gunning. The stories are unpretentious accounts of things the way they used to be. The men share their former involvement in baiting, hunting boats and blinds and their relationship with law enforcement.

What you should not expect from *Marsh Tales* is reference material for sportsman-like conduct and conservation. Much of the book delves into harvesting methods that blatantly violate wildlife management and ethics.

Regardless of the methods that these men used to earn a living, their accounts only serve to substantiate the modern sportsman's outdoor love. Like an old photograph or a checkering-worn double, *Marsh Tales* gives us a piece of our past. Because of this book their memories are now ours.

Marsh Tales needs a few more photographs. Smith includes one per chapter but these aren't enough. A bit more of a pictorial reference would have helped flavor the impact of these stories. Smith does give an introduction to each man explaining where they're from, present residence and occupation and former interests.

Waterfowlers will certainly enjoy *Marsh Tales*. Historians and those interested in the Chesapeake watermen will also welcome this first-hand account of a rapidly fading way of life. □

You Still Can Help

VIRGINIANS CARE
Give Wildlife A Tax Break

During the year you have seen this logo on Ukrop's fall grocery bags, at Southern States stores, on Shenandoah's Pride school milk cartons, on bookmarks at public libraries, at parks, and on Game Commission publications. Every time you see that logo, you see what this program has done for the wildlife of Virginia. This year, over 56,000 Virginian's cared enough to give a portion of their state tax refund to the program. For the first time in the program's four-year history, it looked like the program was going to hit $500,000 in donations. Now with just a few weeks until December 31st, we may not make it without a few more caring Virginians. On November 1st, $495,000 had been donated to the program, just $5,000 short of our goal. Many gave on their state income tax form, others mailed a contribution directly to the Game Commission. There is still time for you to mail in a contribution and help us make our program grow. In order for contributions to be counted towards our 1985 total, they must be received by December 31, 1985. All contributions are tax-deductible when you file your 1985 tax forms. Mail your contributions to: Virginia Game Commission, Non-Game Program, P.O. Box 11104, Richmond, VA 23230-1103. Thank you. □

Winter Project: Wood Duck Boxes

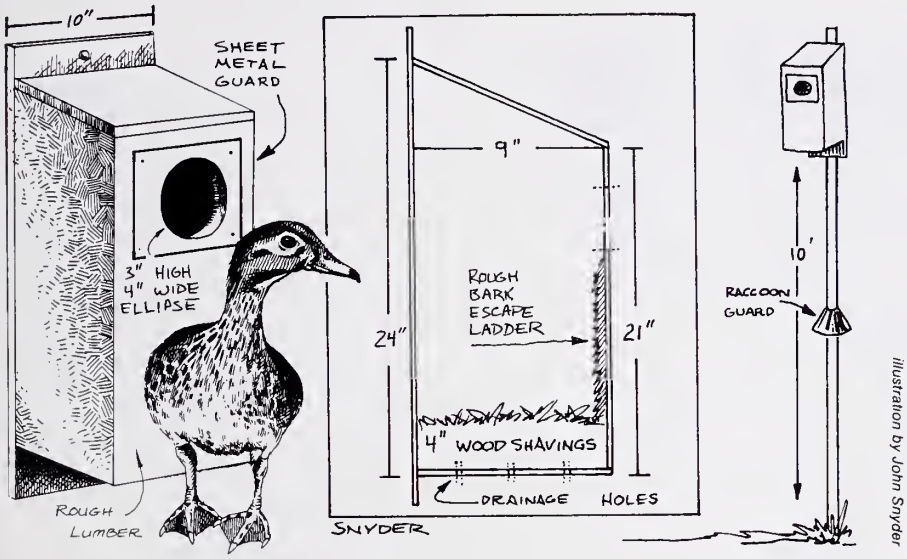


illustration by John Snyder

by Jeffrey M. Curtis

If you're interested in providing a nesting cover for woodies or other wildlife, contact Jeffrey Curtis at the Game Commission, P.O. Box 11104, Richmond, VA 23230-1104. □

Birds, Butterflies

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free, and available by contacting Jeffrey M. Curtis, Wildlife Education Coordinator, Commission of Game and Inland Fisheries, Box 11104, Richmond, VA 23230-1104, (804) 257-1000. □

Cold Water Creates Danger

by Col. William Antozzi

Now that cold water can be expected in our waters, immersion danger becomes a real threat. Anyone who could be immersed in water should be aware that cold water can rapidly kill. The reason for death is heat loss, generally called "hypothermia."

Cold water rapidly conducts heat away from the body. Ten to fifteen minutes after immersion the heart and brain begin to cool. Intense shivering occurs and then unconsciousness can follow. The final result is heart failure.

A person who finds himself in cold water should not swim to keep warm because heat loss will accelerate. It is more important to hold still and try to protect those areas of the body where heat loss is greatest. The body should be kept as far out of the water as possible, by climbing onto an overturned boat or anything that floats. It is most important to get the head out of the water because heat loss is greatest from the head. For the same reason the sides of the chest and the groin must be protected. By keeping the arms tight against the side and folded across the chest plus keeping the thighs together and raised, those areas are covered. Clothes should not be removed because they help retain heat. Huddling with others in the water also helps.

Distances on water are deceiving, and swimming in cold water is difficult. If in doubt, a person should not try to swim to shore. The exercise of swimming will cut down survival time.

Hypothermia victims need immediate help. They must be slowly rewarmed by body contact, warm towels, bottles or pads, or warm baths. They may need artificial resuscitation and heart massage.

A personal flotation device (PFD) is a big factor in cold water survival. If a person falls in, the wearing of a PFD may make the difference between life and death.

Even though a person is rescued from the water and is breathing, he may continue to get colder and perish. Medical attention should be obtained as soon as possible.

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Winter Project: Wood Duck Boxes

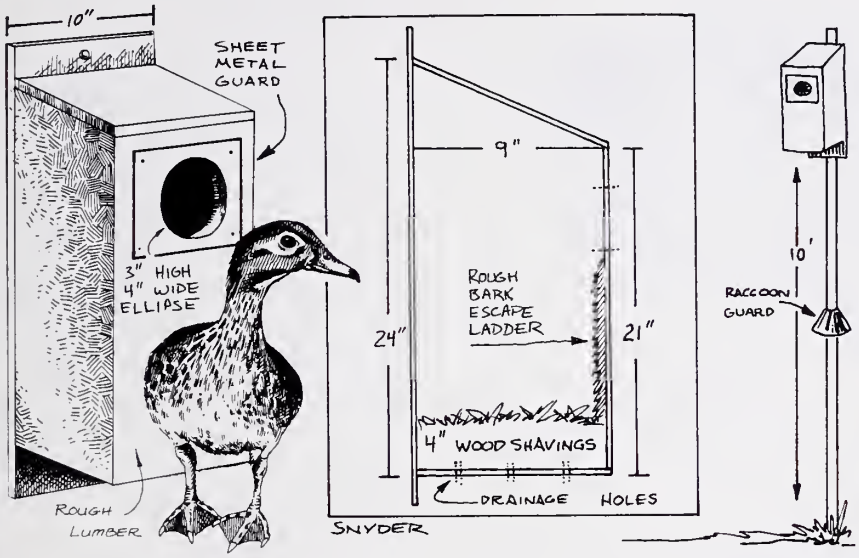

illustration by John Snyder

by Jeffrey M. Curtis

It's difficult, if not humorous to think about nesting season when outside the wind holds more than a bit of a chill to it. But in a few short months, the wintery grip on the land will slowly succumb to sping—and the wildlife courtship and breeding activities that come with it.

Here's an inside project that provides one of the essentials of wildlife survival—nesting habitat.

Wood ducks, one our smallest waterfowl, are considered the most colorful duck in North America—if not the world. Seeing a drake in nuptial plumage is all the convincing anyone needs to encourage a breeding pair to remain within viewing distance.

These ducks will readily accept artificial housing. Many times a "colony" may be established in a good marsh. Boxes may even be erected back to back, similar to purple martin housing. The box illustrated is simple to contruct. Basic hand tools are used. Wood may be scavenged from old barns, out buildings or discarded slabs from the local lumber yard.

If you're interested in providing a nesting cover for woodies or other wildlife, contact Jeffrey Curtis at the Game Commission, P.O. Box 11104, Richmond, VA 23230-1104. □

Birds, Butterflies, and Flowers

Want to be able to walk out your back door and spot a Great Spangled Fritillary butterfly delicately landing on a *Phlox divaricata* flower? How about a look at a Ruby-Throated hummingbird feeding on a *Albizia julibrissin?* Well, learn all about the types of trees, shrubs, and flowers you can plant in your backyard to recreate the ideal habitat for butterflies and hummingbirds in the Game Commission's new publication, *A Planting Guide for Virginia Nectar-Seekers.* Researched by Patricia Purdy of Salem, Virginia, and produced by the Non-Game Wildlife and Endangered Species Program, the pamphlet offers natural alternatives to the often harmful sugar water feeding methods adopted by many homeowners to attract hummingbirds to their backyards, and details the kinds of plants to cultivate to meet the needs of different species of butterflies. The pamphlet is free, and available by contacting Jeffrey M. Curtis, Wildlife Education Coordinator, Commission of Game and Inland Fisheries, Box 11104, Richmond, VA 23230-1104, (804) 257-1000. □

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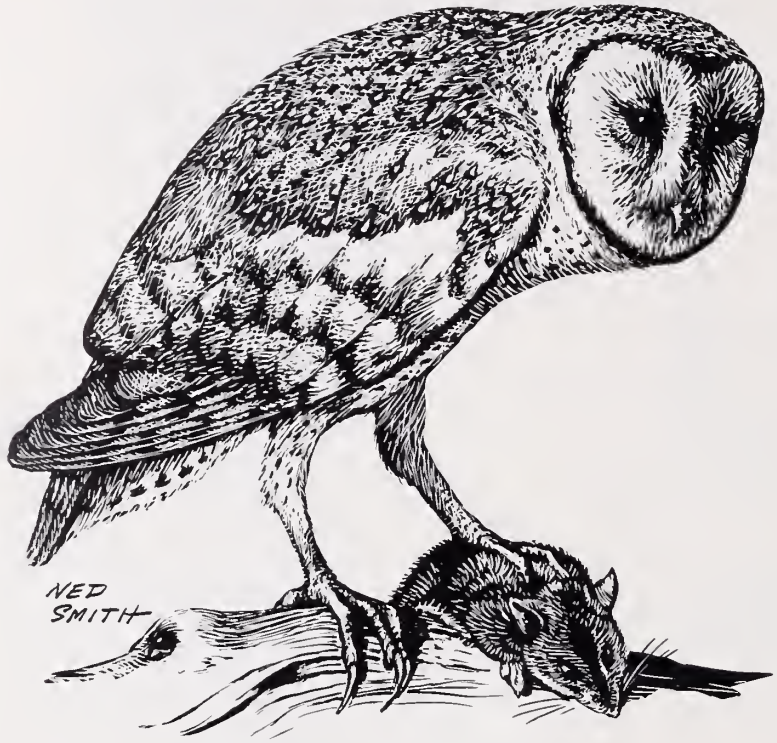
November Journal



Seen Any Barn Owls Lately?

Barn owl populations have been declining throughout most of the eastern United States. In fact, barn owls are listed as endangered by six, and declining by 10 state wildlife agencies. Chuck Rosenburg, a graduate student with the College of William and Mary, is trying to solve that mystery in Virginia with the help of a grant from the Game Commission's Non-Game Program. But, he needs your help. Any information you might have about barn owls in your area, including when and where an owl was seen (include county, route, number, property owner's name) and whether nesting occured will be most appreciated. All reports will be kept confidential. Please send your information to: Chuck Rosenburg, Department of Biology, College of William and Mary, Williamsburg, VA 23185.

Also, it has been found that barn owls adapt well to nest boxes. If you are interested in constructing a barn owl nest box in your area, please send a self-addressed, stamped envelope to Chuck Rosenburg. He will be glad to fill your request.

If you have never seen a barn owl sleeping the day away on a rafter or tirelessly carrying mouse after mouse to a hungry brood of young, you are not alone. Most people never see this uncommon nocturnal bird that is a better rodent killer than the barnyard cat. But try looking for them (and the pellets they leave behind) in undisturbed barns, empty silos, abandoned buildings, unused water tanks, church steeples, and hollow trees. If you find one, let Chuck know. He will appreciate it, and it will help us all understand more about this ghostly apparition of a bird.

Editor's note: As soon as Chuck Rosenburg finishes his barn owl project, he has promised to let *Virginia Wildlife* readers in on what he has discovered about the feeding and nesting behavior of this secretive bird. □

Nongame Booklet

The Game Commission's Non-Game Wildlife and Endangered Species Program has just updated their 13-page booklet on Virginia's Endangered Species. The booklet covers those vertebrates and molluscs which are rare in Virginia and the current research being carried out on them. The publication is free to the public and available by contacting Jeff Curtis, Virginia Commission of Game and Inland Fisheries, Box 11104, Richmond, VA 23230-1104, (804) 257-1000. □

About the Authors

Steve Ausband is a freelance writer who teaches at Averett College in Danville. **Louis Bignami** is a freelance outdoor writer from California, and his wife, **Annette Bignami**, is an accomplished cook, specializing in wild game dishes. She has written several books on the subject of wild game cookery. **Elizabeth Murray** was a regular columnist for *Virginia Wildlife* for many years as author of "In Nature's Garden." **Joel Vance** is the news writer for the Missouri Department of Conservation, and is a freelance writer for several national outdoor magazines. □

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State _____ **Zip** _____

Effective Date _____

Moving?

Attach most recent address label here and send in care of Data Processing, Virginia Game Commission, P.O. Box 11104, Richmond, Virginia 23230-1104, or call (804) 257-1449.

Wanted: A Director for RESPECT

The Virginia Operation RESPECT (Responsible and Educated Sportsmen Promoting Ethical Conduct Together) program needs an Executive Director. Applicants should be knowledgeable about outdoor sports, hunter education and safety, and have the values of a true sportsman. The position also requires an excellent communicator, as the director's duties will include frequent public appearances, correspondence, fund raising, coordination of events, and management of inventory. Interested? Contact Tom Evans, 1402 Pump House Drive, Richmond, VA 23221, (804) 358-0143. □

20th Annual Thanksgiving Window Watch Bird Count

Thanksgiving is by tradition a family day. Why not have the family enjoy watching your bird feeder and listing the birds that visit the feeder during that one hour on Thanksgiving Day? It is fun to gather information for the computer databank for analysis and insights into trends in abundance and distribution of birds. Those who took part in any of the last 3 years will automatically be mailed the necessary form in October. New participants should write Dr. Ernest P. Edwards, Thanksgiving Bird Count, Sweet Briar College, Sweet Briar, VA 24595 for a form.

Started in Virginia 20 years ago, the count has expanded to reach into many states. Recent publicity in *Bird Watcher's Digest* has brought in more than 60 inquiries already and they keep arriving. This will be the best count ever. Be sure your birds are counted! □

Richmond River Access Now Open

On October 18, the Game Commission cut the ribbon to open a long awaited river access to the James River at Huguenot Bridge in Richmond. The access area is located in the heavily used James River Park, and cost $32,134 to complete. Who can we thank for providing this kind of money to fund this project? Boat owners and fishermen. The Game Commission contributed $8,033 out of the boat registration and title fees, and the U.S. Fish and Wildlife Service contributed the remaining $24,100 from the Dingell-Johnson Fund, made up of tax money collected on fishing and boating equipment. □

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JOHN W TAYLOR

Bird of the Month

The Tufted Titmouse

Thomas Nuttall was an English immigrant to the United States who became one of the ranking botanists and ornithologists of his time. He sailed from England in 1809, settling first in Philadelphia, then travelling on foot, over much of the South and the frontier West. Somewhat of a recluse, he preferred to travel alone.

Or in the company of the tufted titmouse. It was his favorite among all the birds he encountered. They were his "constant and amusing companions" during the winter he passed in the "dreary solitudes of the southern states," he wrote in his *Ornithology*, first published in 1833.

Nuttall was fascinated by the vocal range of the titmouse. He devoted more than half of his biographical essay on the species to its song and call notes, concluding that "though his voice on paper may appear to present only a list of quaint articulations, yet the delicacy, energy, pathos and variety of his simple song, like many other things in nature are beyond the feeble power of description."

Nuttall liked to call the titmouse the "peto bird," a reference to one of its characteristic calls, a plaintive, two-syllabled whistle. Most frequently heard on the first warm days of spring, it seems to be associated with the mating instinct. Some of its other calls resemble closely the familiar notes of the chickadee, a close relative in the family *Paridae*.

This group of birds, embracing about sixty-five species, is widely distributed, but is not represented in Madagascar, South America or Australia. They show structural affinities with the jays and crows and also seem closely related to the nuthatches. The family evidently is of European origin, where most of its members are found. Two allied species live in the western United States.

Like the other species of this family, the tufted titmouse is non-migratory. Individuals may spend a lifetime within a single square mile. But they do show a tendency to wander, especially during the winter months, when food may be scarce. And they are gradually expanding their range northward.

Until recently, Virginia lay near the northern limits of the range of the titmouse. Nuttall did not find them north of Delaware, where he first encountered them. In his day, they were strictly a bird of the Carolinian Faunal Zone and rarely strayed from the coastal plain. At present, they are an abundant nesting bird throughout the state, and are regularly seen in New England and Canada.

In March, pairs begin to separate from the winter flocks, and there are signs of courtship behavior. There seems to be no elaborate mating ritual, but when the pair bond is sealed, the male will offer food to the female amid much wing fluttering. Nesting begins soon afterward.

Titmice seek out some cavity in which to place their nest. In most instances, an old woodpecker hole, long abandoned, is chosen or the site may be a natural hollow formed by lightning or the breaking of a branch. In modern times, they frequently make use of man-made nesting boxes. They are not highly selective regarding their nesting location. It may be close to the ground, or as high as ninety feet. It may be deep in the woods or in the stubble of an open pasture.

The nest itself, though not elaborate, is large and bulky. The birds cram a lot of material into the cavity, making use of whatever is readily available. Along with the usual grasses, leaves and bark fibers, they will utilize bits of paper, wool, cotton and hair.

They show a special fondness for hair, and will go to special efforts to obtain it. Not only do they pick up stray hairs or even bits of fur from dead animals; they are even bold enough to collect it from living mammals, including humans. There are instances, reliably documented, of titmice snatching bits of fur from a red squirrel and from a woodchuck. And Arthur Cleveland Bent, in his life history of the titmouse, carefully details two cases of titmice boldy pulling the hair from human beings.

Softly nestled within their nest are usually from five to six eggs. Sometimes there's as many as eight. Creamy white, they are delicately marked with rufous brown. Incubation requires about 12 days, and the young remain in the cavity an additional 14 to 15 days. The nestlings are virtually naked, save for a downy covering of dusky gray on the head and back. As the juvenile plumage develops, the young are much like the adults, though the plumage is duller of color, and more down-like in its softness. But within a few months, the young and old are virtually indistinguisable. The crest is by then fully developed and the flanks have turned a deep russet. When freshly molted, the adults are tinged with olive brown on the back and buff-brown on the chest. The female is not quite so richly colored as her mate, but this is hardly noticeable except in comparison.

The tufted titmouse was among the first American birds to be described for science. The father of modern taxonomy, Carolus Linneaus, gave it the name *Parus bicolor*, and it was so listed among Thomas Jefferson's compilation of Virginia's birds. *Parus* is the Latin word for titmouse and *bicolor* probably refers to the two-toned effect of the light breast and grayish blue upperparts.

Attractive, friendly and of cheerful disposition, the titmouse is a valued member of our avifauna., It is not hard to understand why Thomas Nuttall found it his favorite among all the American birds he studied. □

by John W. Taylor

Give Your Friends A Year In The Woods

Give the people you care about a chance to get outdoors every month with *Virginia Wildlife*. Every month your friends will find out where Virginia's deer hide out, how to find the best fishing holes in the state, and they might even learn something new about the nesting behavior of the peregrine falcon or the Delmarva fox squirrel. Your friends will learn about Virginia wildlife from the experts, from those biologists and sportsmen who have spent their lives in the woods and on the waters of Virginia.

Give a subscription of *Virginia Wildlife* to 10 of your friends this Christmas and save $20.00. We'll send your friends *Virginia Wildlife* at a special group rate of only $3.00 per one-year subscription, which is $2.00 off the already scandalous subscription price of $5.00.

And, as a special Christmas gift to you, we'll send you a signed, limited edition, suitable-for-framing print of the Great Horned Owl pictured above, by Richmond artist Chris Patch. Mr. Patch is in his final year of art school at Virginia Commonwealth University, studying to become a professional illustrator. In a gallery, this print would sell for at least $50.00 unframed, and will be yours free for sending the gift of *Virginia Wildlife*. The original acrylic painting was commissioned especially for *Virginia Wildlife*, and is printed on high-quality paper, with an overall size of 16x20 inches.

Order your subscription to *Virginia Wildlife* now, so that your friends can start receiving their first issue in January. Use the special envelope and form enclosed in this issue, and keep yourself and your friends in the woods all year long.